

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
31 March 2005 (31.03.2005)

PCT

(10) International Publication Number
WO 2005/028064 A1

(51) International Patent Classification⁷: **B01D 15/08**,
G01N 30/60

(21) International Application Number:
PCT/EP2004/010599

(22) International Filing Date:
22 September 2004 (22.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0322144.7 23 September 2003 (23.09.2003) GB

(71) Applicant (for all designated States except US): **AMERSHAM BIOSCIENCES AB** [SE/SE]; Bjorkgatan 30, S-751 84 Uppsala (SE).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **GEBAUER, Klaus** [DE/SE]; Amersham Biosciences AB, Bjorkgatan 30, S-751 84 Uppsala (SE).

(74) Agents: **FRANKS, Barry** et al.; Amersham plc, Amersham Place, Little Chalfont, Buckinghamshire HP7 9NA (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

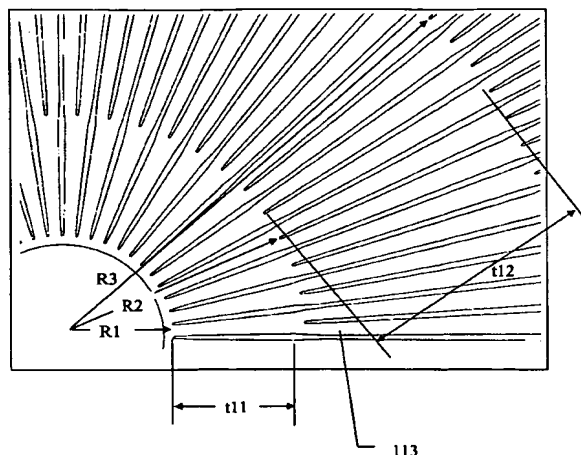
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: CHROMATOGRAPHY COLUMN DISTRIBUTION SYSTEM



(57) Abstract: A chromatography column distribution system (101) comprises a set of first bed support ribs (107) extending radially from a inner, first radial position (R1) near the centre of the plate to a outer radial position nearer to the periphery (109) of the plate and at least one set of intermediate bed support ribs (117, 119) starting at an intermediate radial position (R2, R3) and extending to an outer radial position nearer to the periphery (109) of the plate (101), whereby channels are formed between adjacent bed support ribs (107, 117, 119). The desired effective local channel height is intended to vary in accordance with a predetermined formula from said first radial position (R1) to said outer radial position, and in accordance with the present invention the transverse cross-sectional areas of said ribs (107, 117, 119) or said channels are adapted such that the actual local effective channel height is within 15% of the desired local effective channel height over portions of the distribution system situated between said first radial position (R1) and said outer radial position, wherein the total length of said portions correspond to at least 80% of the distance between said first radial position (R1) and said outer radial position.



WO 2005/028064 A1

WO 2005/028064 A1



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.